Application No.: 10/019,407 Dock t No.: 520.41003X00

APPENDIX A

ABSTRACT

A semiconductor device and a method of manufacture thereof by forming an amorphous semiconductor film on the surface of an insulative substrate, and irradiating the amorphous semiconductor film with a laser beam to crystallize it to form a polycrystalline semiconductor thin film. A transistor is then formed in the polycrystalline semiconductor thin film. More specifically, a UV-ray is irradiated to the rear face of the insulative substrate or the amorphous semiconductor film to heat the amorphous semiconductor film to a melting temperature or lower. Then a laser beam at a suitable shape selection laser energy density Ec forms the crystal grains with the number of closest crystal grains of 6 most predominantly being irradiated to convert the amorphous semiconductor film into a polycrystalline semiconductor thin film. The thin film transistor formed in this structure has a high yield and is capable of high-speed operation.